IN THE SPECIFICATION:

Please amend the specification as follows:

On page 4 of the specification, immediately before the heading "DETAILED DESCRIPTION" insert the following new paragraphs [0010.1] through [0010.6]:

[0010.1] Figure 2A depicts a light/white area of a printed medium, according to an embodiment.

[0010.2] Figure 2B depicts a histogram of pixel values for the light/white area depicted in Figure 2A.

[0010.3] Figure 3A depicts a black/dark area of a printed medium, according to an embodiment.

[0010.4] Figure 3B depicts a histogram of pixel values for the black/dark area depicted in Figure 3A.

[0010.5] Figure 4A depicts a gray area of a printed medium, according to an embodiment.

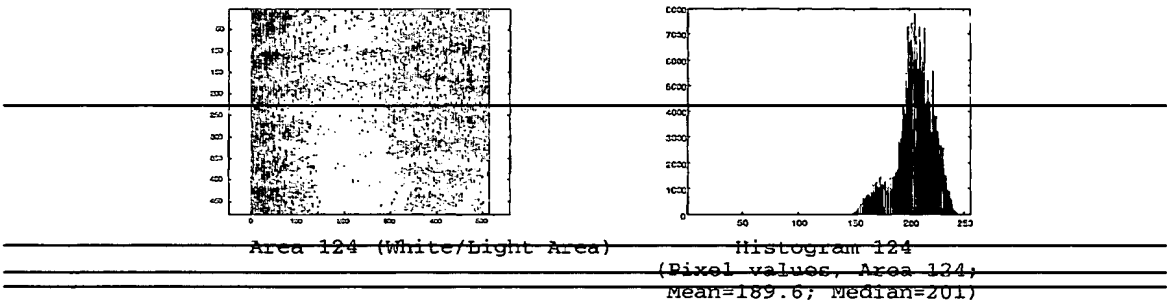
[0010.6] Figure 4B depicts a histogram of pixel values for the gray area depicted in Figure 4A.

On page 5 of the original filed application, please replace paragraph [0015] with the following:

[0015] The area can be a predetermined region, of predetermined size, or both. Alternatively, the area can be dynamically determined as a portion of the medium 120 printed on by the printing apparatus 100. Referring to Figure 2A ~~For example~~, Area 124 represents ~~illustrated below is~~ a light/white area of approximately two square millimeters on a

white paper (not printed) scanned with a sensor array having 8-bit pixel values for each sensor element in the array. Thus, the pixel values range from a zero (completely dark, no reflection) to 255 (maximum light reflection, 255 = 2^8 - 1). Referring to Figure 2B, the [[The]] collected pixel values for Area 124 are displayed in a histogram format by Histogram 124 having its x-axis as the pixel values and the y-axis as the number of pixels in Area 124 having a given pixel value.

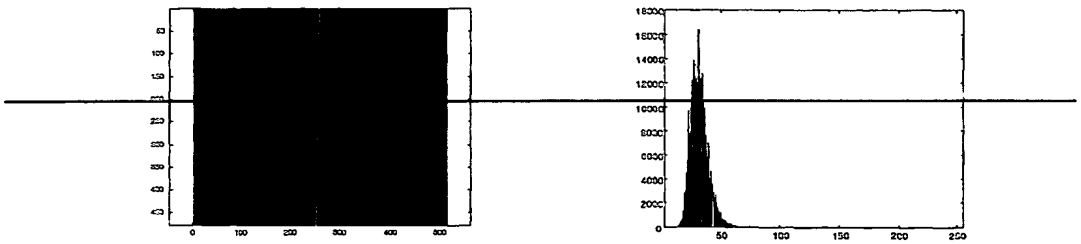
On page 6 of the original filed application, above paragraph [0016], please delete the following diagrams of the Area 124 and the Histogram 124 as follows:



On page 6 of the original filed application, please replace paragraph [0016] with the following:

[0016] Referring to Figures 3A and 3B, Area 128 ~~below is~~ represents another area, meeting color density for the visual dark threshold, with the collected pixel values illustrated as Histogram 128.

On page 6 of the original filed application, above paragraph [0017], please delete the following diagrams of the Area 128 and the Histogram 128 as follows:



On page 6 of the original filed application, please replace paragraph [0017] with the following:

[0017] Note that for each of the histograms illustrated as Histogram 124 and Histogram 128, as shown in Figures 2B and 3B, respectively, a set of metrics, or measurements, can be taken. For instance, in the white/light area (Area 124), shown in Figure 2A, the median pixel value is 201 and for the black/dark area (Area 128), shown in Figure 3A, the median pixel value is 32. There are many metric criteria that can be applied to the collected set of pixel values to determine metrics, or measurements, of image density for the purposes of determining printing quality and adjusting the print density to increase the printing quality. These metric criteria include, for example, mean pixel value, variance pixel values, standard deviation of pixel values, ratio between the mean and the median pixel values, ratio of the number

of pixels above the mean to the number of pixels below the mean, etc. Many other statistical metrics can be defined and used.

On pages 7 and 8 of the original filed application, please replace paragraphs [0018] through [0020] with the following:

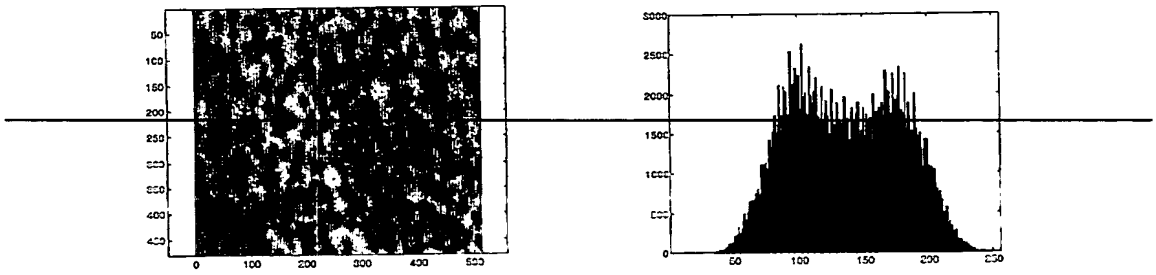
[0018] Metric criteria are applied to the collected pixel values by first determining measurements of image density from the collected pixel values, then comparing the measurements against reference measurements or other predetermined criteria. For instance, suppose a dark area (not shown in Figure 1) on the medium 120 is printed, pixel values are collected by the sensor 114, and the pixel values yield a mean value of 27 and median of 29. The mean value of 27 and the median of 29 for the dark area 126 indicate that the density of the dark area is greater than the visual dark (or black) threshold which, in the current example has mean of 31.1 and median of 32). See Area 128 and Histogram 128 shown in Figures 3A and 3B, respectively. Accordingly, the processor 116 may signal the print engine 110 to reduce print density for dark areas. For another case, the processor 116 may signal the print engine 110 to increase print density for dark areas.

[0019] In an alternative embodiment of the present invention, the measurements of the image densities of the light and dark areas may be shifted and scaled (normalized) into a predetermined range for use by the print engine 100. In the present example, referring to Figures 2B and 3B, respectively, the light area 124 mean pixel value of 189.6 and the dark area 128 mean of 31.1 can be shifted and normalized into a 100 point scale from zero to 99. Then, the scaled measurement of the image density can be

used against scaled reference criteria to determine the correct number densities at which to print dots.

[0020] The scaled measurements and the scaled references account for various media. For example, referring to Figures 4A and 4B, for the medium 120 having a light or white area density mean of 189.6 and dark or black area density mean of 31.1, to print a gray area 126 having 50% dot density (scaled density of 50), desired mean of the pixel values is set at 110.35 (=[189.6+31.1]/2) which is at the midpoint between the light area mean and the dark area mean. Figures 4A and 4B show Area 126 and Histogram 126, respectively. ~~The following diagrams (~~Area 126 and Histogram 126 [[ )]] illustrate a nearly 50% covered area and its pixel values. Area 126 refers to area 126 [[of]] as shown in Figure 1 ~~as well as the diagram below~~ and Figure 4A.

On page 8 of the original filed application, above paragraph [0021], please delete the following diagrams of the Area 126 and the Histogram 126 as follows:



On page 8 of the original filed application, please replace paragraph [0021] with the following:

[0021] Referring to Figure 4B, an [[An]] interesting characteristic of the pixel values of Area 126 as illustrated by Histogram 126 is its bimodal property. In Histogram 126, higher signal (lighter) mode, or peak, is formed around pixel value of approximately 180 and the lower signal (darker) mode, or peak, is formed around pixel value of approximately 95. In some implementations of the present invention, as the density increases (causing the average visual effect of darker and darker image), two different trends develop. First, as the image darkens, more pixels take on weaker (darker) pixel amplitudes. Second, as the images darken, dominant pixel population shifts from the first mode (at the higher (lighter) pixel values) to a second mode (at a lower (darker) pixel value) and a roughly bimodal distribution eventually occurs in a predictable manner.